

Claims:

1. An ion generator comprising:  
a first electrode;  
5 a second electrode;  
a voltage generator electrically coupled to the first electrode and the second electrode in  
order, when energized, to create a flow of air in a downstream direction from the first electrode  
to the second electrode; and  
wherein said second electrode is comprised of two or more surfaces that are at an angle  
10 to each other.
2. The ion generator of claim 1 wherein said second electrode is Z-shaped.
3. The ion generator of claim 1 wherein said second electrode has a tail section that is  
15 substantially wider than a nose section.
4. The ion generator of claim 1 wherein said second electrode has a downstream tail section  
that is substantially wider than an upstream nose section.
- 20 5. The ion generator of claim 1 wherein said second electrode has a leading planar section  
and a trailing section that is at an angle to said leading planar section.
6. The ion generator of claim 1 wherein said second electrode has an upstream leading planar  
section and a downstream trailing section that is at an angle to said leading planar section.  
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7. The ion generator of claim 1 wherein said second electrode is hollow.

8. The ion generator of claim 1 wherein said two or more surfaces are each planar.

9. An ion generator comprising:

5 a first electrode;

a second electrode;

a voltage generator electrically coupled to the first electrode and the second electrode in order, when energized, to create a flow of air in a downstream direction from the first electrode to the second electrode; and

10 wherein said second electrode has a tail section that is wider than a nose section.

10. The ion generator of claim 9 wherein said tail section is located downstream from said nose section.

11. A device for conditioning air comprising:

15 a housing with an air inlet and an air outlet;

a first electrode;

a second electrode;

said first electrode located closer to said air inlet than said second electrode;

20 said second electrode located closer to said air outlet than said first electrode;

a potential generator electrically coupled to the first electrode and the second electrode in order, when energized, to create a flow of air in a downstream direction from the first electrode to the second electrode; and

25 wherein said second electrode is comprised of two or more surfaces that are at an angle to each other.

12. The ion generator of claim 11 wherein said second electrode is Z-shaped.
13. The ion generator of claim 11 wherein said second electrode has a tail section that is wider than a nose section.
- 5 14. The ion generator of claim 11 wherein said second electrode has a downstream tail section that is wider than an upstream nose section.
- 10 15. The ion generator of claim 11 wherein said second electrode has a leading planar section and a trailing section that is at an angle to said leading planar section.
- 15 16. The ion generator of claim 11 wherein said second electrode has an upstream leading planar section and a downstream trailing section that is at an angle to said leading planar section.
17. The ion generator of claim 11 wherein said second electrode is hollow.
18. The ion generator of claim 11 wherein said two or more surfaces are each planar.
- 20 19. A device for conditioning air comprising:  
a housing with an air inlet and an air outlet;  
a first electrode;  
a second electrode;  
said first electrode located closer to said air inlet than said second electrode;  
25 said second electrode located closer to said air outlet than said first electrode;  
a potential generator electrically coupled to the first electrode and the second electrode in

order, when energized, to create a flow of air in a downstream direction from the first electrode to the second electrode; and

wherein said second electrode has a tail section that is wider than a nose section.

5      20.      The ion generator of claim 19 wherein said tail section is located downstream from said nose section.

10      21.      The ion generator of claim 1 wherein said second electrode is teardrop-shaped with a small rounded end and a large bulbous end and with the pointed end located closer to said first electrode.

22.      The ion generator of claim 1 wherein said second electrode is V-shaped with a rounded end, and with the rounded end of the V-shape located closer to said first electrode.

15      23.      The ion generator of claim 9 wherein said second electrode is teardrop-shaped with a small rounded end and a large bulbous end and with the small rounded end located closer to said first electrode.

20      24.      The ion generator of claim 9 wherein said second electrode is V-shaped with a rounded end, and with the rounded end of the V-shape located closer to said first electrode.

25      25.      The ion generator of claim 11 wherein said second electrode is teardrop-shaped with a small rounded end and a large bulbous end and with the pointed end located closer to said first electrode.

26.      The ion generator of claim 11 wherein said second electrode is V-shaped with a rounded

end, and with the rounded end of the V-shape located closer to said first electrode.

27. The ion generator of claim 19 wherein said second electrode is teardrop-shaped with a small rounded end and a large bulbous end and with the small rounded end located closer to said first electrode.

28. The ion generator of claim 19 wherein said second electrode is V-shaped with a rounded end, and with the rounded end of the V-shape located closer to said first electrode.

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